

ARTS & CULTURE



Photos by Brett Blocker

A collection of uranium-infused kitchenware that would make any dinner guest green with envy (if not slightly radioactive.) Around the turn of the century, wares like these were common in kitchen cupboards across the U.S. Today, they're largely relegated to museums and antique shops like Spicer's Bell Tower Antiques. The shop owns around 100 pieces of glimmering glassware, and even has a custom blacklight display case for interested buyers – and there are many. Collectors travel far and wide to snatch up the pieces, prized for their trademark transition from muted yellow to emerald green when struck by ultraviolet rays. While “custard glass” (the bowls on the left) and Burmese glass (the vessel on the right) also possess phosphorescent properties, Vaseline glass, like the goblet and pitcher set in the center, is distinctly transparent.

Spicer's radioactive glass outshines the finest crystal

By Brett Blocker
Editor

There's no normal way to phrase this, but in the interest of brevity, here it is: there is a serious market for radioactive glassware and it extends into the lakes area; cups and dishes literally aglow with uranium.

Sound too weird to be true? It's not. It's called “Vaseline glass,” and from the late 1800s up to the mid-stages of World War II these items were common throughout the United States, sold as standard kitchenware sets in retail stores, gifted as promotional giveaways and even tumbling out of cereal boxes as a novelty “prizes.”

So-named for its resemblance to Vaseline (under visible light, the glass presents as a transparent shade of yellow), these pieces gleam emerald green when placed under a blacklight's ultraviolet rays.

Though once common in kitchen cupboards of Atomic-age suburbia, production ceased in the 1940s as the U.S. government, realizing the element could be used for more than just a coloring agent, rerouted supplies of uranium toward the development of nuclear bombs.

With production now all but non-existent save for a select few manufacturers, Vaseline glass has since skyrocketed in value. In recent years, articles have appeared in Collectors Weekly and Atlas Obscura detailing the lengths in which collectors will go in search of the stuff.

But some 70 years later, how much Vaseline glass could really still be floating around out there? Turns out, quite a bit. And there's a whole subculture of antique aficionados eager to snatch it up.

On a whim, I called up Spicer's Bell Tower Antiques with what I assumed to be the most absurd interview question of my career: “Do you guys happen to sell radioactive dishes?”

Indeed, they do. As of this week, the shop has about 100 pieces in stock. They've even got a special blacklight display set up just for this purpose.

“I actually had two people in here last week looking for Vaseline glass,” said staff member Liz Christenson. “One guy is a regular, who even comes in with his own blacklight... But they come from all over. [Collectors] tend to have their little catalog of things they're looking for, so when they pass by an antique shop, this is one of those things they look for.”

Other items on the list: Burmese and custard glass – both of which also contain uranium, glow in the dark and can be found lining the shelves of the shop (about 50 in all.) However, unlike Vaseline glass, these wares are not fully transparent, and don't glow with the intensity of Vaseline glass.

Naturally, housing this much uranium on-hand begs the obvious question: Is any of this

dangerous? The pages of science literature are littered with tales of disease and death stemming from improper handling of radioactive materials. Throughout the turn of the century, radiation – discovered, but not fully understood – found its way into all manner of products, from hair creams and cosmetics, to snake oil medicines.

But despite erroneous claims of radiation's healing properties, radium (the radioactive decay of uranium) does, in fact, glow, and was added as a luminous paint in household products. Most infamously: on watches manufactured by the Radium Dial Company. Five watch-painters (later dubbed “The Radium Girls”) would sue the business in 1938 after contracting radiation poisoning from ingesting the substance; the women were instructed to point their brushes into a fine tip with their lips and, having been told the compound was harmless, also applied radium to their fingernails, faces and teeth.

All the while, companies like Fenton Glass included uranium in their kitchenware. And according to Christenson, these pieces weren't just decorative – “People used them.”

“I'm sure they made iced tea in that pitcher and poured it into those goblets,” she said, alluding to a black-lit shelf lined with glimmering vessels. Asked if they pose any health risks, she adds, “I have no idea. But it doesn't stop people from collecting it.”

Fortunately, these items are, at least for the most part, safe. While this glass is technically radioactive, and does contain uranium, radiation isn't the reason for the glow. Rather, the neon sheen results from UV light (black light) exciting uranium's electrons, thereby producing light particles called photons.

“The glowing thing is the exact same phenomenon that happens with a glow-in-the-dark toy, just with a different chemical” explains Dr. Charles Smith, Professor of Chemistry at San

Antonio, Texas's Our Lady of the Lakes University. “That UV light – that's really high-energy radiation. The uranium compound absorbs that high energy light, but can't get rid of it by heat dissipation, so it has to kick it out as light.”

Since energy is lost in the process, light that's emitted is of a lower energy, or wavelength.

“Technically, this glow-in-the-dark stuff is phosphorescent light, not fluorescent. Fluorescent light is too fast to see. Fluorescent light happens on a scale of thousands of billionths of a second – a nanosecond. Phosphorescence

is on the order of milliseconds, where we can see it.”

Simply put, even though uranium content ranges from trace amounts to as much as 25%, Vaseline glass isn't some sort of “Chernobyl chinaware” glowing from excessive levels of radiation; luminosity is just a by-product of the

natural properties found in uranyl compounds. The amount of radiation emitted by the glass is trivial: just above natural background levels, but enough to register on a sensitive Geiger counter.

Regardless of what causes the effect, collectors don't seem to care. And they're willing to pay top dollar for what is becoming an increasingly rare commodity.

That pitcher and goblet set Christenson mentioned? It comes with a price tag of \$189.50. By her estimates, a similar set made of crystal would fetch a mere quarter of that figure.

Although today a high-value item, many of these Depression-era glasses were sold at low cost, if not entirely free, during their hey-day.

Explains Christenson: “You know how in a box of Lucky Charms you sometimes get a little prize? Well that's how some of this got out into the market... Sometimes these things were given out as a gift for buying a product. I compare it to like how at [a grocery store] when you spend so much money and you get Pyrex dishes for free. It was the same type of deal many years ago.”

“But just like fashion or art,” she said, “this is just one thing you don't see coming back. You can't go to Macy's to buy a goblet of Vaseline glass with uranium in it anymore.” For the most part, these pieces are relegated to estate sales and auctions, purchased by a niche community of dealers.



Liz Christenson, of Bell Tower Antiques, displays a cup of Vaseline glass. Under regular light, the piece reflects a transparent petroleum jelly-esque shade of yellow. When placed under UV rays, however, like those in the display case, the piece “turns on like a lightbulb.”

No matter how eagle-eyed the expert, Christenson said the best and easiest way to tell whether a ware has uranium in it (excluding Geiger counters) is by placing it under a blacklight. “That's how I test them. And it's also nice to have a blacklight when you display them. It just gives a different aura than your everyday pieces, and I think that's why people magnetize to them.”

As for whether or not collectors can safely use the glass for eating and drinking, Professor Smith says the threat posed is “extremely low,” but he's not planning on dining from the dish-ware anytime soon.

“Everything needs to be taken into context. It's all about dosage,” he said. A commercial flight, for example, will result in exposure to radiation. A few trips here and there won't pose much of a health risk for the average traveler, but those rays can add up to an increased cancer risk for, say, a flight attendant or pilot.

“There are two aspects to radiation: exposure, meaning particles hitting you, and leaching. Radiation is so low (in Vaseline glass) that exposure isn't the issue. But leaching, that's the issue. So eating off of it is a no-no. Even if that radiation is at a low concentration, why take the risk?”

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